Environment and the Old Sciences

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Objective world

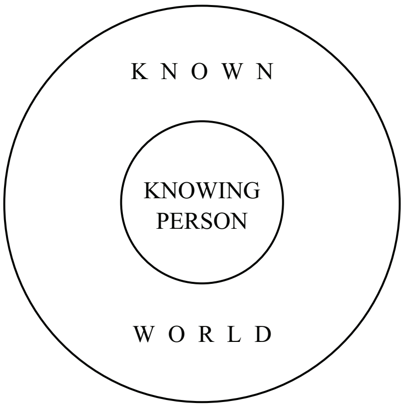
What is the cause of our environmental crisis, which keeps on getting worse as we try to make things better? In one way, the answer is simple and obvious.

Through recent developments in science, we have greatly developed our mechanical technologies, which enable us to achieve particular objectives. But what we choose to achieve is desired by our minds, which keep on taking many different directions. Our minds are thus differently directed, towards a variety of partial and conflicting achievements.

As science is thus used to achieve our desired choices, their conflicts get played out in our living environment, which is shared in common by our bodies and our minds. That shared environment must therefore get increasingly conflicted, by our objective achievements, unless we find some way of resolving their inevitable partiality and their resultant conflicts.

There's nothing new, of course, about this problem of conflicting partiality. It has been understood since ancient times; and it has long been investigated, in an old way that I think is still useful today.

Figure 1 – Knowing island



That old investigation starts by asking how it is that we experience our environment. For each of us, it is experienced through a personal identity. A knowing person is identified at the centre of one's own experience, and this knowing person is surrounded by a known world. An illustration is given in figure 1. One here identifies oneself as a sort of knowing island: which is made up of a perceiving body, with a thinking and a feeling mind. This person is experienced as alive, through its perceptions, thoughts and feelings about objects in the world.

But there is something wrong with this personal identity. Its bodily perceptions are not properly knowing. They only show us partial appearances, of various objects in the world. To know things better, bodily perceptions have to be interpreted, through thoughts and feelings in the mind. Those thoughts and feelings enable us to put perceptions together, in fuller and more accurate descriptions of what has been perceived.

We thus describe a structured world, which is made up from co-existing parts. Each object may be described *macro*scopically, as related to other objects in some larger structure. And each object may also be described *micro*scopically, as made up

of smaller parts. Our minds are here used to describe an objective world, which is made up like a machine, from smaller parts at various scales of size. This is the kind of mechanical description that has been so much emphasized, by what is now called ‘modern physics’.

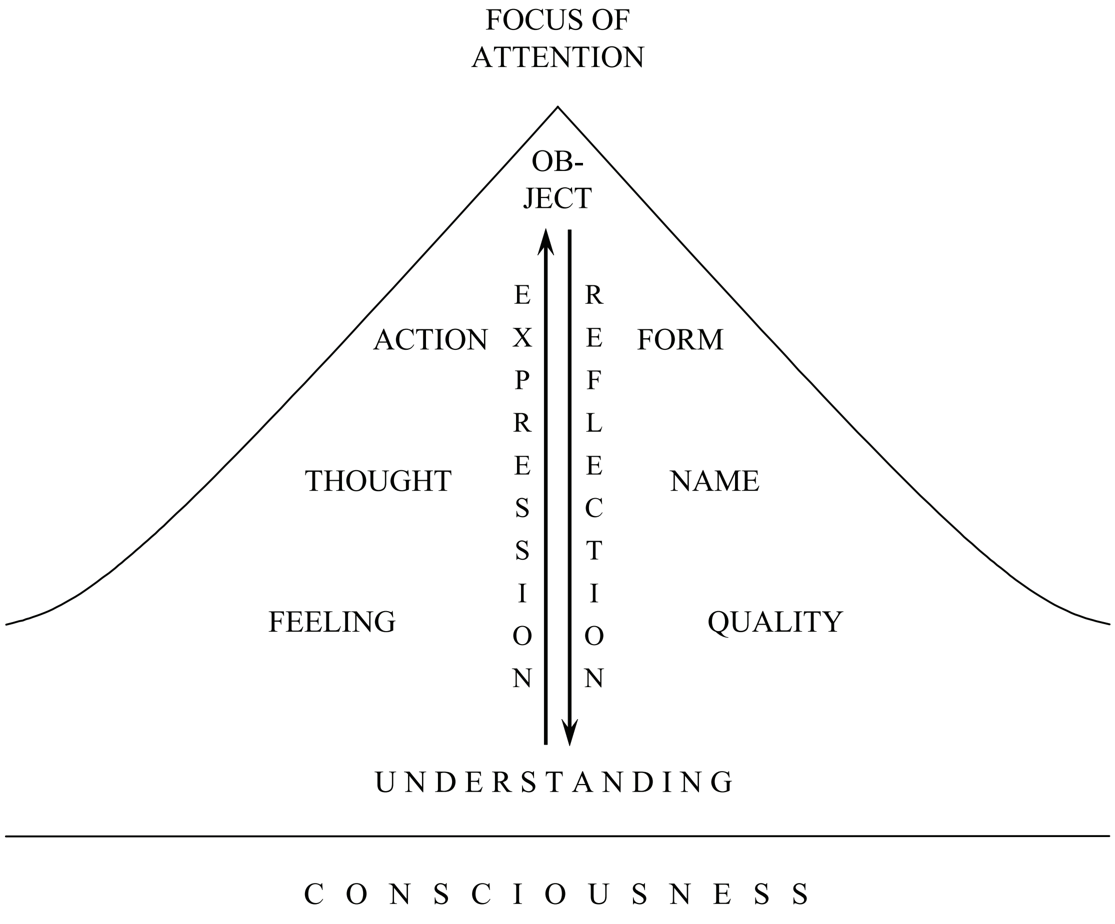
Learning in our minds

But, as we experience our environment, we find that it is not just mechanical. It is not just a structure made of objects. In the world’s objective structure, we find living purposes and meanings and values, which we understand by reflecting back into our minds. Through that reflection, we experience mind as a living process of continued learning. And we find life expressed – not just in our own personalities, but also in the objective world. It’s thus that our experience is not just *mechanical*. When mind is taken into count, our personalities are recognized *organically*, as taking part in a living environment.

If we examine the experience in our minds, it turns out to be quite different from our bodily experience of the world. It’s only body that experiences itself in space, surrounded by an external world. The mind experiences itself in time, through a process of replacing moments.

At any given moment, a person’s mind sees something in particular. So a particular object appears, at the front tip of attention. But underneath, many other things are

Figure 2 – Learning from experience



understood, at the background of experience. That background is the depth of our experience. It is the depth where consciousness continues, while objects appear and disappear, at the focus of attention.

From that underlying background, attention is drawn up, so as to focus on the object that appears. This focusing is shown in figure 2 (previous page). As an object appears in mind, it expresses understanding, from a continued background of underlying consciousness. The expression rises up through feelings, thoughts and actions that have turned attention to this particular object; so that it gets to be perceived, in a narrow focus at the surface of the mind.

As this object is perceived, its perception is reflected back – by observing the object's form and relationships, by naming the object and interpreting its meaning, and by judging its quality and value. The perception is thereby assimilated into a new state of understanding that is carried on in time – by absorption into underlying consciousness.

Then, from the new state of understanding, further feelings, thoughts and actions rise; thus turning attention to further objects that come into appearance and are assimilated into understanding. This cycle of expression and reflection keeps on mediating back and forth, between the changing objects that appear and the background consciousness that carries on beneath. It's only thus that we can learn, as a variety of objects come and go, in the course of continuing experience.

Nature and consciousness

If you look again at figure 2 (previous page), you will see that it divides our experience into two. At the bottom of the diagram, below the horizontal line, consciousness is shown, continuing through change. Above the horizontal line, what's shown is a nature that includes all actions in the mind, along with each object that is seen in the world.

Here, nature is not just an objective world, outside our thoughts and feelings. Instead, it includes all activities, both in the world and in our minds. With all actions thus taken into nature, consciousness is taken to be actionless. So there is a clear distinction, between doing and knowing.

- *Doing* is the action of an instrument, which is itself an object of some other such action. Such actions occur in the realm of a completely objective nature – which produces all phenomena, both physical and mental, throughout all space and time. Whatever may appear is here conceived to be produced by the same objective nature. One universal nature is thus taken to manifest itself, in all the phenomena that may appear – no matter where or when, no matter how perceived or thought or felt, in anyone's experience.
- *Knowing* is the actionless illumination of a purely subjective consciousness, which is not an instrument or an object of any action. That consciousness shines by itself, as its own light, beneath all show of changing acts. By its mere presence, as it is, in everyone's experience, it lights each one of the appearances that come and go. Its actionless illumination is thus conceived to light the show of changing happenings that nature manifests, no matter where or when perceived. In this conception, knowing is inherently impersonal, at the inmost centre of personal experience.

This is a very old conception, found in many different cultures. It conceives of nature as a living whole: which keeps on presenting many partial appearances, before the

impartial witnessing of consciousness. In ancient Greece, nature was called 'phusis', which implies organic growth; and consciousness was called 'nous', which implies an inmost principle of pure intelligence. In India, nature is called 'prakriti', which implies ongoing activity; and consciousness is called 'puruṣha', which implies a common principle of knowing in all different personalities.

But, having thus divided our experience into two, we have to ask how the two parts are related to each other. If the knowing of consciousness is finally detached from all the doings of nature, then what is the relevance of that pure knowing? What is its practical effect for us, in our personalities and in the world outside?

This practical effect is described by the word 'life'. As we experience nature's functioning, it is not just mechanical. An action that's mechanical is driven artificially, by some outside instrument which is the object of some previous action. A natural action is quite different. It happens spontaneously, acting of its own accord, motivated from within. That inner motivation is what makes nature 'natural'.

Thus, nature functions organically, through a shared energy that rises up internally, so as to manifest all different and changing happenings. That one, same energy keeps rising up – from deep within each of the happenings that we experience in our personalities and in the world outside. This rising up of energy is nature's life.

As nature acts to show us its appearances, in anyone's experience, all of these many different acts originate from one same source. That source is always consciousness itself: the inmost knowing principle that's shared in common by all differing experiences, beneath all difference and change of place and time and personality.

All differing appearances arise expressing that one consciousness. It is their one, unchanged reality – which they all show, through all their seeming differences and change. That consciousness is found reflectively, by standing further and further back into the depth of mind, from where the changes of appearance have arisen.

Through this reflective standing back, a more effective detachment is achieved, from bodily and sensual and mental personality. And the detachment enables clearer perceptions, thoughts and feelings – from a more deeply subjective standpoint that is less compromised by the confusions of our changeable and uncertain personalities.

Accordingly, by standing back subjectively, a duality of knower and known may be progressively clarified. Thus standing back into the depth of knowing, there is less and less confusion between consciousness and personality. Consciousness is realized more clearly as the true knower of experience, found less and less confused with a partially perceiving and thinking and feeling personality that needs to be better known.

Eventually, by standing all the way back into consciousness itself, the duality of knower and known is completed. A purely subjective knower is thus realized. There, knowing is completely impartial, beyond all confusion with the partial appearances which are produced by our perceiving and thinking and feeling personalities.

But an inherent paradox results. As soon as true consciousness is reached, it turns out to be just that one reality which is expressed in all nature's appearances. No matter what appears, the reality that's known is never any different from the self that knows it – a knowing self that we all share in common.

As consciousness illuminates appearances, it knows none other than its own reality. When it is reached, by distinguishing it from what seems known, there all distinction is dissolved. It there turns out that there never is (nor was) any duality, between what knows and what is known. That philosophical position is called 'non-duality'.

As the name indicates, that position is meant to be achieved by an uncompromising investigation into the duality of knower and known. And the investigation must be carried to such an uncompromising extreme that this duality dissolves itself, in a reality to which no difference can apply.

Living energy

From a non-dual perspective, all nature is treated as 'alive'. All nature's functioning is understood to be motivated by a living energy, which rises up spontaneously from underlying consciousness, in all the phenomena that nature manifests to us – no matter where nor when, nor in which person's experience.

In India, that living energy is called 'prāṇa'. This word implies a subtlety of vibrating sound that gets expressed through living breath. Just as our speech is motivated by a living energy that naturally expresses consciousness, so too all nature is conceived to be motivated from that same consciousness, which is found present in everyone.

In this organic sense, all nature's energy expresses consciousness, and it is thus essentially alive. If any action is taken to arise from some partial object, or from some partial perception, thought or feeling, then this action is not natural. It is an artificial action that is driven from outside, by some artificial object of incomplete perception, thought or feeling by some partial personality. No natural action can come from any partial object. All natural actions must arise from a purely subjective consciousness, whose knowing is completely impartial. Returning back to that impartial knowing, all nature's energy is found to be alive.

But what then is that living energy, and how can it be understood? It is an energy of inspiration, which inherently expresses value and meaning and purpose, in our personalities and in the world. And it can only be understood by reflecting back – through forms that we observe, through meanings we interpret and through qualities that we appreciate. This is an inward reflection, which takes us back to underlying consciousness, where the reflection is absorbed.

Thus reflecting inwardly, we understand an energy which is essentially organic. It is that energy which drives the process of experience in our lives. It is not a mechanical energy, which gets transacted from one object to another. Instead of being transacted by objects, it is recycled out and in – as it arises from underlying consciousness, and is returned back there again.

Where science is mechanical, it studies nature as an external world, made up of objects that have been related into structures. These structures are described mechanically – as though they were carefully engineered machines that function in a calculated way, with results that are reliably predictable. Here, scientific theories work essentially through *calculation*. They are designed primarily to calculate predicted results. And the results are then tested and applied mechanically, through external instruments and machines, in a world of space and structure.

But, in the organic approach of many ancient sciences, the emphasis is different. Here, science works primarily through *education*. Its theories must be tested and applied through a reflective investigation back into our living faculties – so as to train our natural capabilities, to clarify our confusions, and to correct our mistakes.

From these two differing approaches, we get two rather different views of nature's energy and life. These different views are shown in figure 3 (next page).

Figure 3 – Energy and life

As seen externally, through mechanical instruments	***As seen by reflective questioning, into our living faculties***
Energy acts mechanically, from one object to another.	As nature functions, a living energy arises from within.
Each object is thus acted upon, by forces and constraints that are imposed from outside.	That energy is inwardly inspired, by the unaffected knowing of pure consciousness.
Life is treated as a special kind of behaviour, which is shown by our bodies in the world.	Life is approached as the natural expression of an underlying consciousness.
This behaviour is described by simulating it, mechanically.	Reflecting back to consciousness, all that is seen expresses it.
Seen thus externally, life is assumed and interpreted, in bodies that are similar to ours.	Seen thus reflectively, by questioning back in, all nature is experienced as alive.

In the end, life is not shown by *where* one looks, in our personalities or their environment. Instead, what shows us nature's life is *how* we look, no matter where we may be looking.

- If we look externally, through calculating pictures that predict results, then we are fitting nature into artificial models, which have been built by our believing minds, from assumptions that are taken for granted. In this artificial modelling, nature is taken to arise from objects of assumption and belief. Where nature is thus taken to arise from objects, it cannot rightly be acknowledged as alive.
- But if we look reflectively, through educating questions that turn back into our minds, then we are no longer trying to fit nature into made-up models. We are now questioning assumptions and beliefs that have been taken for granted, in an artificial modelling. We are thus asking what nature has to say. And in that reflective asking, we listen to a nature that inherently expresses consciousness. Then, nature is found everywhere alive.

Different kinds of science

From this analysis of nature and consciousness, many different sciences have been developed, at different levels of experience. If you look once again at figure 2 (on page 2), you will see that it shows nature at five levels (in the broken triangle that is formed by the three lines).

First, there is a level of objects – where our limited attention gets focused. Second, there is a level of action and form – where action turns attention to objects and our experience is given shape. Third, there is a level of thought and name – where thoughts direct our actions and names are used to describe the forms that we perceive. Fourth, there is a level of feeling and quality – where feelings motivate our thoughts and acts, through an intuitive judgement of qualities and values. And fifth, there is a level of understanding – which expresses knowledge and assimilates what has been learned.

Figure 4 – Five elements

Traditional element	*Level of appearance*	*Examining instrument*	*Scientific disciplines*
‘Earth’	Pieces of matter	External body	Mechanical physics
‘Water’	Transforming energy	Organic faculties	Biological sciences
‘Fire’	Meaningful information	Conceiving intellect	Culture studies and humanities
‘Air’	Conditioned character	Intuitive judgement	Psychology and meditation
‘Ether’	Continuing existence	Reflective reason	Philosophical questioning

Unchanging ground of reality and consciousness

These five levels form a progression, from the gross to the subtle. This is a progression that has long been conceived, somewhat metaphorically, as the old ‘five elements’. An interpretation is summarized in figure 4 (above).

- At the level of ‘earth’, differentiated pieces of matter are perceived through our external bodies, as assumed by the calculating theories and technologies of our mechanical sciences.
- At the level of ‘water’, an activating and transforming energy is observed through our organic faculties, as cultivated and developed in biological sciences that seek to harmonize our microcosmic lives with their containing macrocosm.
- At the level of ‘fire’, meaningful information is interpreted by our conceiving intellects, as educated and clarified by culture studies and the humanities.
- At the level of ‘air’, a qualitative conditioning is evaluated by intuitive judgements that are exercised and expanded in psychology and meditation.
- At the level of ‘ether’, continuing and common principles are investigated by the reflective reasoning of philosophical enquiry, which turns its questions back upon assumptions that have been taken for granted.

But in the end, all sciences are built on common ground, beneath the change and difference of appearances. That ground is the basis on which scientists communicate. On it depend all scientific standards, of accurate testing and of meaningful reference.

Institutions and the individual

But, on what common ground do we build our various sciences? To what common standards do scientists refer, beneath their different personalities? And how do they use those standards to achieve an impersonal knowing, which different people can communicate and share?

In a mechanical approach, the common ground of science is considered restrictedly, as an objective world. In this world, all standards depend on external objects and constructions that are outwardly identified, by organized institutes of scientific teaching and industrial technology. Here, scientific standards are primarily institutional. They are maintained externally, by organized institutions in society.

But this mechanical approach has an inherent problem. Its applications and its institutions are inherently specialized. They work inherently by narrowing upon particular objectives, which require more and more co-ordination as they get more narrowly achieved. This objective narrowness needs to be balanced – by a subjective depth of reflection, into common principles that we find shared beneath our differing objectives.

Where such a balance is disturbed, narrow objects get pursued, at the cost of our living environment. I'd say that this is happening today, on a global scale. Our approach to science has become excessively mechanical. It puts far too much emphasis upon *institutional* testing through objective technologies. And there is a corresponding discouragement of older sciences that are tested *individually*, through a subjective reflection back into our living faculties.

That reflection is essential to all biological sciences, which study living behaviour. But there is a strong tendency to treat these sciences mechanically: as for example in molecular biology, in clinical medicine, and in evolutionary theories of random selection. Such a mechanical treatment has its uses, of course, but it cannot be truly biological. And where it has been overused, it has been clearly damaging, both to our personalities and to our living environment.

In search of a truer biology, we can look back to older sciences, which use the idea of a living energy. These sciences include traditional systems of medicine, like Āyurveda. They also include therapeutic systems like prāṇāyāma and ritual and astrology. In these sciences, our bodies are conceived as living microcosms, which each share a common nature that is found expressed in the macrocosmic world. Reflecting back into that nature, these sciences seek to develop our living faculties, so as to harmonize our microcosmic actions with a living environment where that same nature is found macrocosmically expressed.

Along with a more truly biological conception of living energy, old sciences provide us also with a more truly cultural approach to meaningful information. Where modern sciences of information are currently focused on the calculating use of electronics and computers, the older sciences of information are called the 'humanities'. As this name indicates, these older sciences of information have been centred on the study of classical languages, and they include our creative and imaginative arts. But how can linguistics and our cultural studies be called 'scientific'? How can we take them to be sciences, despite the fact that they are actually applied through creative interpretation and expression? What's clearly needed here is a deeper understanding of science, as applied through the education of our intellects. Otherwise, we will go on building bigger dams, without taking into account the living culture of affected people in the environment.

Beyond the humanities, old sciences of meditation have been used to expand intuition and to purify a person's inner character. In India, such a science has been systematically described, under the name of 'yoga'. Its aim is specifically defined as a complete separation of what sees from what is seen. The word 'yoga' means 'joining', and it is here used to imply a joining back, into pure consciousness. That consciousness is found as a pure see-er, completely unconfused with any partial appearances that nature shows us through our mixed-up personalities.

The meditative sciences are meant to exercise our mental powers to reflect back into mind. They are thus closely allied to a further science that is purely educational. This is the science called 'philosophy'. It has just one concern, which is to know correctly. And that correctness is approached through a reflective questioning. All questions are turned back upon themselves, to investigate the assumptions from which they have arisen. The only aim is a true knowing, which must be found completely free from any mistakes of assumption in our minds.

As these old sciences turn further inward, there is a basic questioning of what it means to be an 'individual'. As a matter of ingrained habit, we tend to identify each individual as a physical and mental person. But there is a confusion here. This word 'individual' comes from the Latin 'individuālis', which means 'indivisible'. That is its essential meaning. It refers to an inner unity, at the centre of divided personality. The old sciences are intended to reflect back there, in search of a knowing that is free from the bias and distortion of our physical and mental partialities.

But in the end, what can we learn from these old sciences, about the current crisis in our living environment? I'd say that these sciences show different levels at which the crisis has to be confronted. This crisis is a wake-up call, as an increasingly mechanical approach to nature is shown up to be increasingly inadequate.

What's happening today is an increasing spread of mechanical technology, through outward institutions that are industrially and politically organized. But this external spread needs to be balanced by an inner depth of education. And that inner depth is achieved by going more deeply back, into common principles of knowing, beneath our different personalities.

As a mechanical approach is spreading globally, it is quite naturally presenting us with global problems that now need urgent action through political and industrial institutions on a global scale. But this kind of urgent action is essentially patchy and short term. It's like using surgical operations and chemical drugs to patch up a body that has been harmed by abusive attitudes and habits in a damaging life style. More deeply than such surgery and drugs, a longer term treatment is needed, to restore a patient's health.

In this context, I would make a distinction between two approaches to environmental work:

- One is *mechanical and institutional*. This approach includes things like environmental audits and predictions and policies and ministries and NGOs. But this is essentially short-term. It works through various short-term means that are inherently damaging to the environment. In fact, it is just through this kind of means that our current crisis has developed and has come to be so threatening.

- In the end, whatever threats may seem to press us now, environmental work must be essentially long-term. Our overall environment gets changed through a long accumulation of many short-term actions that express our underlying perspectives

> and attitudes. Where our perspectives and attitudes go basically wrong, they get shown up through long-term damage to our living environment. Then what we need is a second approach, which may be described as *educational and individual*.

It's for the second approach that the old sciences could be found useful. But naturally, they need to be re-interpreted, in modern times. As we inherit them today, they tend to be expressed in medieval ways that appeal to scholastic authority and thus seem to discourage individual questioning.

Such a scholastic appeal was needed before the development of printing, in order to learn texts by heart. While the old texts were being learned by rote, they had to be taken on authority, so as to reproduce them faithfully. Thus, questioning was out of place, at the start of traditional learning. But afterwards, once the old texts had been learned, they were meant to inspire a deep questioning, on the part of each individual student. This was a system which required that a student should first memorize and obey, in preparation for a deeply individual questioning that was essential later on.

In the modern world, texts and information are more freely available, because they are reproduced mechanically. So we don't need to memorize so much, at the start of our education. And we are much free-er to question individually, right from the start of our modern learning.

This gives us an independent-minded spirit of relentless questioning, which we might use to investigate the old sciences for what they have to tell us today. I'd say that this is an enormous task – with much for us to discover, in many ways that must extend beyond all academic jurisdiction in our schools and universities.